

CLAIMS

What is claimed is:

1. A baked and freezer stable filled waffle comprising:
 - 5 an outer casing material formed from a batter comprising a homogeneous mixture of from 30 to 65 percent by weight water, from 25 to 70 percent by weight of a flour, from 0.05 to 2.5 percent by weight of a bicarbonate and from 0.04 to 2 percent by weight of a leavening acid;
said outer casing material surrounding a filling material having a positive
10 water content of up to 40 percent by weight and said water content in said filling material being less than said percent by weight water in said outer casing material; and
said outer casing material having a water activity level of from 0.9 to 0.99
and said filling material having a water activity level of less than or equal to 0.95 with
said water activity level of said filling material being less than said water activity level
15 of said outer casing material.
2. A filled waffle as recited in Claim 1, wherein said filling material has a water activity level of from 0.7 to 0.95.
- 20 3. A filled waffle as recited in Claim 1, wherein said filling material has a water activity level of from 0.80 to 0.90.
4. A filled waffle as recited in Claim 1, wherein said filling material comprises at least one of a fruit based filling, a cream cheese based filling, a sweet

flavored filling, or mixtures of these.

5. A filled waffle as recited in Claim 1, wherein said filling material comprises a savory filling.

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6. A filled waffle as recited in Claim 5, wherein said filling material comprises at least one of cheese, tomato, tomato and herbs, tomato sauce, vegetables, cheese and vegetable combinations, a cheese, tomato, tomato and herbs, tomato sauce, vegetables, cheese and vegetable combinations, bacon, ham, pork sausage, beef sausage, meat analogs, or mixtures thereof.

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7. A filled waffle as recited in Claim 1, wherein the ratio of outer casing material to filling material ranges from 2:1 to 8:1.

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8. A filled waffle as recited in Claim 1, wherein said flour of said outer casing material comprises at least one of all-purpose flour, hard wheat flour, soft wheat flour, whole wheat flour, corn flour, oat flour, rice flour, barley flour, or mixtures thereof.

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9. A filled waffle as recited in Claim 1, wherein said bicarbonate of said outer casing comprises at least one of ammonium bicarbonate, potassium bicarbonate, sodium bicarbonate, or mixtures thereof.

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10. A filled waffle as recited in Claim 1, wherein said leavening acid of said outer casing comprises at least one of fumaric acid, adipic acid, acetic acid, tartaric acid, monocalcium phosphate monohydrate, anhydrous monocalcium phosphate, anhydrous dicalcium phosphate, dicalcium phosphate dihydrate, sodium acid pyrophosphate, sodium

aluminum phosphate, monoaluminum phosphate, dialuminum phosphate, monoammonium phosphate, diammonium phosphate, sodium aluminum sulfate, or mixtures thereof.

5 11. A filled waffle as recited in Claim 1, wherein said outer casing material further includes at least one of an egg, a fat, a milk product, a sweetener, a salt, a fortificant, a colorant, a protein, an emulsifier, a gum, a starch, a coloring agent, a flavoring agent, an antimycotic preservative, or mixtures thereof.

10 12. A filled waffle as recited in Claim 11, wherein said egg comprises at least one of liquid whole egg, dry whole egg, liquid egg whites, dry egg whites, or mixtures thereof.

15 13. A filled waffle as recited in Claim 11, wherein said fat comprises at least one of non-hydrogenated vegetable oil, non-hydrogenated shortening, partially hydrogenated vegetable oil, partially hydrogenated shortening, fully hydrogenated vegetable oil, fully hydrogenated shortening, soybean oil, cottonseed oil, canola oil, peanut oil, safflower oil, sunflower oil, coconut oil, palm oil, palm kernel oil, olive oil, butterfat oil, cocoa butter oil, tallow, lard, corn oil, or mixtures thereof.

20 14. A filled waffle as recited in Claim 11, wherein said milk product comprises at least one of nonfat dry milk, whole milk solids, casein, hydrolyzed milk protein, milk protein isolate, whole milk, partially defatted milk, skim milk, whey, whey products, or mixtures thereof.

25 15. A filled waffle as recited in Claim 11, wherein said sweetener comprises at least one of sucrose, dextrose, fructose, lactose, malt syrup, malt syrup solids, rice syrup solids, rice syrup, invert sugar, malt syrup, malt syrup solids, refiners syrup, corn syrup, corn syrup solids, maltose, high fructose corn syrup, honey, molasses, artificial
30 sweeteners or mixtures thereof.

16. A filled waffle as recited in Claim 11, wherein said salt comprises at least one of sodium chloride, potassium chloride, calcium chloride, or mixtures thereof.

5 17. A filled waffle as recited in Claim 11, wherein said fortificant comprises at least one of ascorbic acid, beta carotene, biotin, calcium pantothenate, choline, folic acid, niacin, Vitamin A, Vitamin B₁, Vitamin B₂, Vitamin B₆, Vitamin B₁₂, Vitamin D₂, niacinamide, Vitamin D₃, Vitamin E, Vitamin K, boron, calcium, chromium, copper, iodine, iron, magnesium, molybdenum, nickel, potassium, selenium, vanadium, zinc, 10 calcium citrate, calcium gluconate, calcium lactate, calcium caseinate, calcium chloride, calcium citrate malate, calcium glycerophosphate, calcium hydroxide, calcium malate, calcium stearate, calcium sulfate, or mixtures thereof.

18. A filled waffle as recited in Claim 11, wherein said protein comprises at 15 least one of egg albumen, whey protein, soy protein, vital wheat gluten, peanut protein, pea protein, or mixtures thereof.

19. A filled waffle as recited in Claim 11, wherein said emulsifier comprises at least one of a mono-glyceride, a di-glyceride, a propylene glycol monoester, a 20 propylene glycol diester, a sodium steroyl lactylate, a lecithin, a polysorbate, a sorbitan monostearate, a glyceryl lacto ester, or mixtures thereof.

20. A filled waffle as recited in Claim 11, wherein said gum comprises at least one of pectin, guar, locust bean, tara, gellan, alginate, tragacanth, karaya, Ghatti, agar, 25 gelatin, arabic, acacia, carrageenan, xanthan, cellulose, carboxymethylcellulose, hydroxypropylmethocellulose, or mixtures thereof.

21. A filled waffle as recited in Claim 11, wherein said starch comprises at least one of natural starch, modified starch, cornstarch, waxy cornstarch, rice starch,

wheat starch, tapioca starch, potato starch, arrowroot starch, maize starch, oat starch, or mixtures thereof.

22. A filled waffle as recited in Claim 11, wherein said preservative
5 comprises at least one of sodium benzoate, potassium sorbate, sodium propionate, calcium propionate or mixtures thereof.

23. A filled waffle as recited in Claim 11, wherein said color and said flavor
agents comprise at least one of a natural coloring agent, an artificial coloring agent, a
10 natural flavoring agent, an artificial flavoring agent, or mixtures thereof.

24. A filled waffle as recited in Claim 1, wherein said outer casing material
further comprises from 40 to 45 percent by weight water, from 35 to 40 percent by weight
hard wheat flour, from 6 to 15 percent by weight shortening, from 3 to 7 percent by
15 weight liquid whole egg, from 0.5 to 3 percent by weight whey, from 1 to 5 percent by
weight sugar, from 0.5 to 1 percent by weight baking soda, from 0.4 to 0.7 percent by
weight sodium aluminum phosphate, from 0.25 to 1 percent by weight salt, and from 0.1
to 0.5 percent by weight monocalcium phosphate.

25. A filled waffle as recited in Claim 1, wherein said filling material further
comprises a first filling material and a second filling material, said second filling material
being other than said first filling material;

each of said first filling material and said second filling material having
a positive water content of up to 40 percent by weight and said water content in said first
25 and said second filling material being less than said percent by weight water in said outer
casing material; and

said outer casing material having a water activity level of from 0.9 to 0.99
and each of said first and said second filling material having a water activity level of less

than or equal to 0.95 with said water activity level of said first and said second filling material being less than said water activity level of said outer casing material.

26. A baked freezer stable filled waffle comprising:

5 an outer casing material formed from a batter comprising a homogeneous mixture of from 30 to 65 percent by weight water, from 25 to 70 percent by weight flour, from 0.05 to 2.5 percent by weight bicarbonate and from 0.04 to 2 percent by weight leavening acid;

10 said outer casing material surrounding a filling material formed from a mixture comprising a positive water content of up to 40 percent by weight, from 35 to 80 percent by weight sweeteners, and from 0.5 to 50 percent by weight fruit source;

said water content in said filling material being less than said percent by weight water in said outer casing material; and

15 wherein said outer casing material has a water activity level of from 0.9 to 0.99 and said filling material has a water activity level of less than or equal to 0.95 with said water activity level of said filling material being less than said water activity level of said outer casing material.

27. A filled waffle as recited in Claim 26, wherein said filling material has a
20 water activity level of from 0.7 to 0.95.

28. A filled waffle as recited in Claim 26, wherein said filling material has a water activity level of from 0.80 to 0.90.

29. A filled waffle as recited in Claim 26, wherein said flour of said outer casing material comprises at least one of all-purpose flour, hard wheat flour, soft wheat flour, whole wheat flour, corn flour, oat flour, rice flour, barley flour, or mixtures thereof.

5 30. A filled waffle as recited in Claim 26, wherein said bicarbonate of said outer casing comprises at least one of ammonium bicarbonate, potassium bicarbonate, sodium bicarbonate, or mixtures thereof.

10 31. A filled waffle as recited in Claim 26, wherein said leavening acid of said outer casing comprises at least one of fumaric acid, adipic acid, acetic acid, tartaric acid, monocalcium phosphate monohydrate, anhydrous monocalcium phosphate, anhydrous dicalcium phosphate, dicalcium phosphate dihydrate, sodium acid pyrophosphate, sodium aluminum phosphate, monoaluminum phosphate, dialuminum phosphate, monoammonium phosphate, diammonium phosphate, sodium aluminum sulfate, or
15 mixtures thereof.

32. A filled waffle as recited in Claim 26, wherein said outer casing material further includes at least one of an egg, a fat, a milk product, a sweetener, a salt, a fortificant, a coloring agent, a protein, an emulsifier, a gum, a starch, a flavoring agent,
20 an antimycotic preservative, or mixture thereof.

33. A filled waffle as recited in Claim 26, wherein said filling material further includes at least one of a starch, a fat, a flavor agent, an emulsifier, an acidulant, a hydrocolloid gum, a salt, a coloring agent, an antimycotic preservative, a humectant, a
25 fortificant, a protein or mixtures thereof.

34. A filled waffle as recited in Claim 26, wherein said sweetener of said filling material comprises at least one of sucrose, dextrose, fructose, lactose, malt syrup, malt syrup solids, rice syrup solids, rice syrup, invert sugar, refiners syrup, corn syrup,

corn syrup solids, maltose, high fructose corn syrup, honey, molasses, artificial sweeteners, or mixtures thereof.

35. A filled waffle as recited in Claim 26, wherein said fruit source of said
5 filling material comprises at least one of fruit flakes, dry fruit flakes, fruit puree, puree concentrate, juice, juice concentrate, fresh fruit, frozen fruit, fruit concentrate, or mixtures thereof.

36. A filled waffle as recited in Claim 33, wherein said starch of said filling
10 material comprises at least one of natural starch, modified starch, cornstarch, waxy cornstarch, rice starch, wheat starch, tapioca starch, potato starch, arrowroot starch, maize starch, oat starch, or mixtures thereof.

37. A filled waffle as recited in Claim 33, wherein said fat of said filling
15 material comprises at least one of non-hydrogenated vegetable oil, non-hydrogenated shortening, partially hydrogenated vegetable oil, partially hydrogenated shortening, fully hydrogenated vegetable oil, fully hydrogenated shortening, soybean oil, cottonseed oil, canola oil, peanut oil, safflower oil, sunflower oil, coconut oil, palm oil, palm kernel oil, olive oil, butterfat oil, cocoa butter oil, tallow, lard, corn oil, or mixtures thereof.

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38. A filled waffle as recited in Claim 33, wherein said flavor agent comprises at least one of a natural flavor, an artificial flavor, or mixtures thereof.

39. A filled waffle as recited in Claim 33, wherein said emulsifier comprises
25 at least one of a glycerol ester, a diacetyl tartaric acid, an ester of a monoglyceride, a mono-glyceride, a di-glyceride, a polyglycerol ester, a polysorbate, a propylene glycol ester, a rice extract ester, a sodium stearoyl-2-lactylate, a sorbitan ester, a lecithin, a sugar ester, an acetylated monoglyceride, or mixtures thereof.

40. A filled waffle as recited in Claim 33, wherein said acidulant comprises at least one of citric acid, malic acid, tartaric acid, lactic acid, acetic acid, phosphoric acid, adipic acid, glucono delta lactone acid, fumaric acid, succinic acid, tarenic acid, or mixtures thereof.

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41. A filled waffle as recited in Claim 33, wherein said gum comprises at least one of pectin, guar, locust bean, tara, gellan, alginate, tragacanth, karaya, Ghatti, agar, gelatin, arabic, acacia, carrageenan, xanthan, cellulose, carboxymethylcellulose, hydroxypropylmethocellulose, or mixtures thereof.

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42. A filled waffle as recited in Claim 33, wherein said salt comprises at least one of sodium chloride, potassium chloride, calcium chloride, and mixtures thereof.

43. A filled waffle as recited in Claim 33, wherein said coloring agent
15 comprises at least one of natural coloring agent, an artificial coloring agent, or mixtures thereof.

44. A filled waffle as recited in Claim 33, wherein said antimycotic
preservative comprises at least one of sodium benzoate, potassium sorbate, sodium
20 propionate, calcium propionate or mixtures thereof.

45. A filled waffle as recited in Claim 33, wherein said humectant comprises at least one of glycerin, sorbitol, fructose, propylene glycol, or mixtures thereof.

46. A filled waffle as recited in Claim 33, wherein said fortificant comprises
25 at least one of ascorbic acid, beta carotene, biotin, calcium pantothenate, choline, folic acid, niacin, Vitamin A, Vitamin B₁, Vitamin B₂, Vitamin B₆, Vitamin B₁₂, Vitamin D₂, niacinamide, Vitamin D₃, Vitamin E, Vitamin K, boron, calcium, chromium, copper, iodine, iron, magnesium, molybdenum, nickel, potassium, selenium, vanadium, zinc,
30 calcium citrate, calcium gluconate, calcium lactate, calcium caseinate, calcium chloride,

calcium citrate malate, calcium glycerophosphate, calcium hydroxide, calcium malate, calcium stearate, calcium sulfate, or mixtures thereof.

47. A filled waffle as recited in Claim 33, wherein said protein comprises at least one of egg albumen, whey protein, soy protein, vital wheat gluten, peanut protein, pea protein, or mixtures thereof.

48. A filled waffle as recited in Claim 26, wherein the ratio of said outer casing material to said filling material ranges from 2:1 to 8:1.

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49. A filled waffle as recited in Claim 26, wherein said outer casing material further comprises from 40 to 45 percent by weight water, from 35 to 40 percent by weight hard wheat flour, from 6 to 15 percent by weight shortening, from 3 to 7 percent by weight liquid whole egg, from 0.5 to 3 percent by weight whey, from 1 to 5 percent by weight sugar, from 0.5 to 1 percent by weight baking soda, from 0.4 to 0.7 percent by weight sodium aluminum phosphate, from 0.25 to 1 percent by weight salt, and from 0.1 to 0.5 percent by weight monocalcium phosphate.

50. A filled waffle as recited in Claim 26, wherein said filling material further comprises 20 to 25% by weight water, 40 to 45% by weight sweeteners, 2 to 10% by weight dry fruit flakes, 2 to 5% by weight instant modified starch, 0.2 to 0.5% by weight citric acid, 0.2 to 0.5% by weight fruit flavoring, 0.1 to 0.5% by weight xanthan gum, 0.2 to 0.5% by weight emulsifier, 0.1 to 0.4% by weight malic acid, 0.1 to 0.4% by weight coloring, 0.1 to 0.5% by weight flavoring other than fruit flavoring, and 0.1 to 0.5% by weight salt.

51. A baked freezer stable filled waffle comprising:
an outer casing material formed from a batter comprising a homogenous mixture of from 30 to 65 percent by weight water, from 25 to 70 percent by weight of

a flour, from 0.05 to 2.5 percent by weight of a bicarbonate and from 0.04 to 2 percent by weight of a leavening acid;

said outer casing material surrounding a filling material formed from a mixture of a sweet flavored filling comprising from 1 to 40% by weight water, from 35
5 to 80% by weight sweetener, from 0.5 to 5% by weight starch, from 0.1 to 3% by weight gum, and from 0.01 to 5% by weight flavoring; and

wherein said outer casing material has a water activity level of from 0.9 to 0.99 and said filling material has a water activity level of less than or equal to 0.95 with said water activity level of said filling material being less than said water activity
10 level of said outer casing material.

52. A filled waffle as recited in Claim 51, wherein said filling material has a water activity level of from 0.7 to 0.95.

15 53. A filled waffle as recited in Claim 51, wherein said filling material has a water activity level of from 0.80 to 0.90.